MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2018 / 2019 SESSION

PPE0044 – BASIC MICROECONOMICS
(Foundation in Business)

15 OCTOBER 2018
2.30 P.M.– 4.30 P.M.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **TEN (10)** pages.

2. Answer **ALL** the questions in **Sections A and B.**

3. Shade your answers for **Section A** on the OMR sheet. Write your answers for **Section B** in the Answer Booklet.

SECTION A : MULTIPLE-CHOICE QUESTIONS [30 MARKS]

Instructions: Answer **ALL** questions in this section. Shade your answers on the **OMR** sheet.

1. The demand for a product is inelastic with respect to price if _____.
   A. the elasticity coefficient is less than 1
   B. the elasticity coefficient is greater than 1.
   C. a drop in price is accompanied by a decrease in the quantity demanded
   D. a drop in price is accompanied by an increase in the quantity demanded

2. If the price elasticity of demand for a product is 2.5, then a 10 percent price cut will _____.
   A. increase the quantity demanded by about 2.5 percent
   B. increase the quantity demanded by about 25 percent
   C. decrease the quantity demanded by about 2.5 percent
   D. increase the quantity demanded by about 250 percent

3. The demand for such products as salt, bread, and electricity tend to be _____.
   A. unit elastic
   B. perfectly price elastic
   C. relatively price elastic
   D. relatively price inelastic

4. In which of the following instances will total revenue decline?
   A. price rises and supply is elastic
   B. price falls and demand is elastic
   C. price rises and demand is elastic
   D. price rises and demand is inelastic

5. The number of computers bought increased by 20 percent when the price of online services declined by 10 percent. Assuming other factors are held constant, computers and online services are classified as _____.
   A. substitutes
   B. complements
   C. unrelated goods
   D. none of the above

6. We would expect the cross elasticity between tennis racquets and tennis balls to be _____.
   A. one
   B. zero
   C. positive
   D. negative

Continued...

7. The income elasticity of demand for shoes is estimated to be 1.50. We can conclude that shoes _____.
   A. are normal good
   B. are inferior good
   C. have a relatively flat demand curve
   D. have a relatively steep demand curve

8. If the income elasticity of demand for a good is 0.55, then the demand for the good is considered _____.
   A. price elastic
   B. price inelastic
   C. income elastic
   D. income inelastic

9. Supply of a good becomes _____ elastic over time because _____.
   A. less; of the scarcity of resources
   B. more; demand become more inelastic
   C. less; suppliers have more time to acquire additional inputs
   D. more; suppliers have more time to acquire additional inputs

10. Suppose that when price is RM10, quantity supplied is 20. When price is RM6, quantity supplied is 12. The price elasticity of supply is _____.
    A. 0.5
    B. 0.8
    C. 1.0
    D. 2.0

11. John is considering opening his own café. To do so, he would have to quit his current job, which pays RM25,000 a year, and take over a store building that he owns and currently rents to his sister for RM8,000 a year. His expenses at the café would be RM50,000 for food and RM2,000 for gas and electricity. What are his explicit costs?
    A. RM33,000
    B. RM85,000
    C. RM52,000
    D. RM72,000

12. If a firm has total revenue of RM200 million, explicit costs of RM190 million, and implicit costs of RM20 million, its economic profit is _____.
    A. RM0
    B. RM10 million
    C. -RM10 million
    D. RM170 million

Continued...

13. During the course of a week, V-café has enough time to hire or layoff workers, but it does not have enough time to expand its kitchen or add an additional seating area. In this situation, V-café _____.
   A. has no fixed costs
   B. is in the short run
   C. earns a large profit
   D. suffers an economic loss

14. If a firm expands its output and realises higher average costs of production, then _____.
   A. it has experienced economies of scale
   B. it has experienced diseconomies of scale
   C. it has experienced constant returns to scale
   D. the long-run average costs curve slopes download

15. Assume that the price of pepsi cola increases. As a result, your real income decreases and you decrease the quantity of pepsi cola purchased each month. This is an example of the _____.
   A. income effect
   B. revenue effect
   C. substitution effect
   D. none of the above

16. If income rises, the budget line _____.
   A. does not shift
   B. rotates outward
   C. shifts inward towards the origin
   D. shifts outward away from the origin

17. An indifference curve shows _____.
   A. two bundles of two goods each where one bundle is preferred to the other
   B. the bundles of two goods that give an individual equal amount of satisfaction
   C. two bundles of two goods each where one bundle gives greater satisfaction to an individual than the other bundle
   D. none of the above

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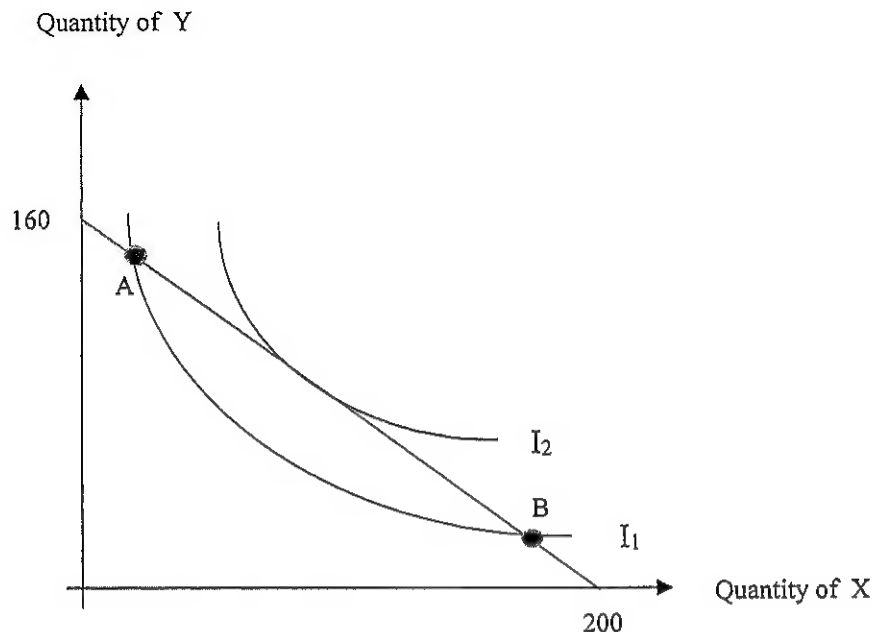
Refer to *Exhibit 1* for question no. 18.

Quantity of Y

Quantity of X

Exhibit 1

18. Why doesn't the consumer choose the combination at point A in order to be equilibrium?
    A. MRS is less than P_X/P_Y.
    B. MRS is less than P_Y/P_X.
    C. MRS is greater than P_X/P_Y.
    D. None of the above

19. In which of the following market structure do all firms sell identical products and there is freedom of entry and exit?
    A. Monopoly
    B. Oligopoly
    C. Perfect competition
    D. Perfect competition and monopolistic competition

20. If the demand curve for a firm is perfectly elastic, which of the following is **TRUE**?
    i. The firm is a price taker.
    ii. There are many perfect substitutes for the seller's product.
    iii. The firm will sell no output if it sets the price of its product below the market price.
    A. i
    B. i and ii
    C. ii and iii
    D. i, ii and iii

Continued...

21. If a perfectly competitive firm shuts down, it incurs an economic loss equal to its
    _____.
    A. total cost
    B. marginal cost
    C. total fixed cost
    D. average total cost

22. If a perfectly competitive firm has maximised its profits, then it increases its output,
    the firm's _____.
    A. total revenue increases, but total cost rises by more so the firm's total profit
       decreases.
    B. total revenue decreases and total cost increases, thereby decreasing the firm's total
       profit.
    C. total revenue does not change but total cost increases, thereby decreasing the
       firm's total profit.
    D. marginal revenue increases, but so does the marginal cost, so the firm's total profit
       increases.

23. Which of the following is **TRUE** for a monopolist?
    A. P = MR
    B. P < MR
    C. P < MC
    D. P > MR

Exhibit 2 shows the demand (D), marginal revenue (MR), marginal cost (MC) and average
total cost (ATC) curves for the only fitness training center in a small town. Refer to *Exhibit
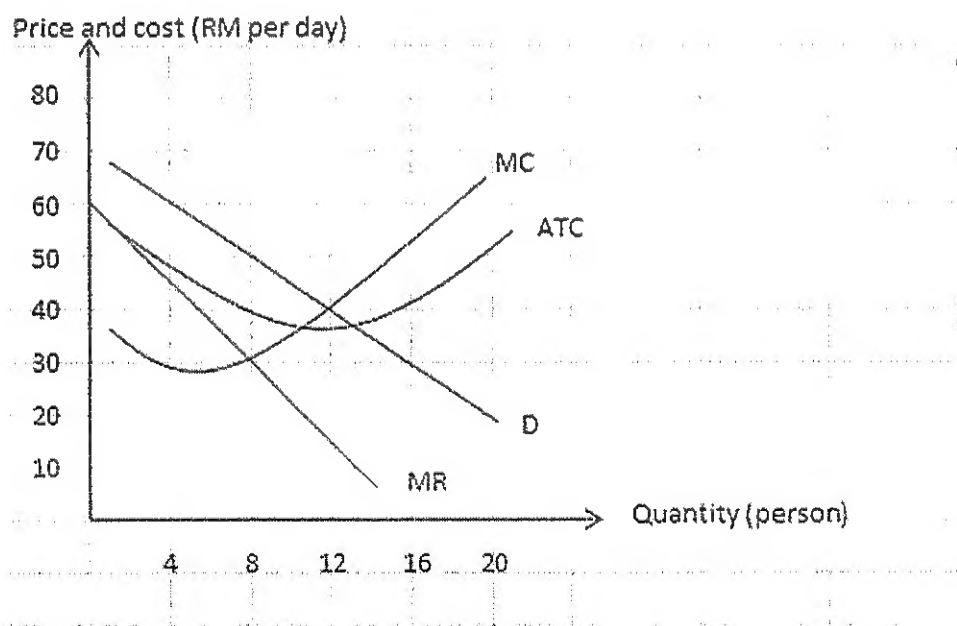2* for questions no. 24 and no. 25.

Exhibit 2

Continued...

24. Based on *Exhibit 2*, the fitness center will choose to train _____ person(s) per day and charge _____ per customer in order to maximise its profit.
    A. 4; RM60
    B. 8; RM30
    C. 8; RM50
    D. 12; RM40

25. Based on *Exhibit 2*, what are the total profits when the fitness center maximised its profit?
    A. RM80
    B. RM120
    C. RM160
    D. RM480

26. A monopoly firm will incur loss if _____.
    A. it cannot perfectly price discriminate
    B. its average total cost is greater than price
    C. its average fixed cost is greater than price
    D. it produces at the level of marginal revenue equals its marginal cost

27. In monopolistic competition, freedom of entry and exit means _____.
    A. firms will exit the market when it made economic profits
    B. firms will enter the market when it incurred economic losses
    C. firms will enter the market when it made zero economic profits
    D. firms will enter a market to compete for economic profits and leave when economic losses are being incurred

28. Pantene Shampoo first creates Pro-V Nutrient Blends that make hair healthier, after a year of research, it adds on moisture balancing to keep hair soft and flexible. Its scientific research continues to improve the quality of the products. Pantene Shampoo does this because it is _____.
    A. a monopoly that trying to decrease its costs
    B. a perfectly competitive firm trying to increase its price
    C. a monopolistic competitive firm trying to decrease its costs
    D. a monopolistic competitive firm trying to differentiate its products

29. There are 3 taxi firms that serve the market in a city. These firms are competing in _____.
    A. a monopoly
    B. an oligopoly
    C. perfect competition
    D. monopolistic competition

30. A characteristic found only in oligopoly is _____.
    A. interdependence of firms
    B. it products are slightly different
    C. barriers of entry into the industry
    D. it faces a downward sloping demand curve

Continued...

SECTION B : STRUCTURED QUESTIONS [70 MARKS]

Instructions: Answer **ALL** questions in this section. Write your answers in the answer booklet provided.

Question 1

Part A

Suppose a chair manufacturer is producing in the short run when the firm's equipment is fixed. The manufacturer knows that as the number of labourers used in the production process increases from 1 to 7, the number of chairs produced changes as follows: 10, 17, 22, 25, 26, 25, 23.

a) Calculate the marginal product and average product of labour for this production function.

(7 marks)

b) Does this production function exhibit diminishing returns to labour? How do you know?

(2 marks)

c) Explain intuitively what might cause the marginal product of labour to become negative.

(2 marks)

Part B

Exhibit 3 depicts the total costs of a firm producing product X.

Output	0	1	2	3	4	5	6	7	8	9
Total cost (RM)	100	120	140	160	220	300	450	600	1,000	2,500

Exhibit 3

a) What is the fixed cost for the firm? How is it derived?

(2 marks)

b) Calculate the marginal cost of this firm.

(5 marks)

c) At which output level does the firm start to experience the law of diminishing marginal returns? Briefly explain.

(2 marks)

[TOTAL 20 MARKS]

Question 2

Part A

Assume that Sally derives utility from the consumption of two goods, hamburgers and CDs. The utility she receives from each good at various levels of consumption is shown in *Exhibit 4*. Also assume that she has RM50 to spend on hamburgers and CDs, and the price of CDs is RM10 each and the price of hamburger is RM5 each.

Continued...

Hamburgers			CDs		
Quantity	Total utility	Marginal utility	Quantity	Total utility	Marginal utility
0	0	-	0	0	-
1	30	30	1	30	30
2	55	25	2	50	20
3	75	20	3	60	10
4	90	15	4	65	5
5	103	13	5	70	5
6	113	10	6	72	2
7	121	8	7	73	1
8	127	6	8	74	1
9	127	0	9	74	0
10	125	-2	10	74	0

Exhibit 4

a) Calculate the MU/P ratio for hamburgers and CDs at each level of consumption.

(5 marks)

b) Determine the utility-maximising combination of hamburgers and CDs. Briefly explain how you arrived at the answer.

(3 marks)

c) What does the information in *Exhibit 4* tell you about the 9th and 10th CDs?

(1 mark)

d) What does the information in *Exhibit 4* tell you about the 10th hamburger?

(1 mark)

Part B

Let B = a loaf of bread and W = a bottle of wine. A loaf of bread (B) costs RM1.50 and a bottle of wine (W) costs RM6.00. At the equilibrium point, a consumer is on the indifference curve where 4 loaves of bread and a bottle of wine are consumed.

a) Calculate the total expenditure when the consumer is at equilibrium.

(2 marks)

b) With the information given, calculate the real income in terms of bread and real income in terms of wine.

(2 marks)

c) Draw the consumer's budget line with bread on the vertical axis and wine on the horizontal axis. Show the consumer equilibrium.

(4 marks)

d) What would happen to the real income in terms of bread if the price of bread increases to RM2.00 per loaf? Show the calculation. Has the budget line become steeper or flatter?

(2 marks)

[TOTAL 20 MARKS]

Continued...

Question 3

Part A

Kea Farm plants and sells tomatoes. Tomatoes market is perfectly competitive and the market price for tomatoes is RM4.50 per kilo. The farm's output and total cost is shown in *Exhibit 5*.

Quantity (kilo per day)	Total cost (RM)
0	400
100	800
200	1020
300	1168
400	1530
500	1980
600	2480

Exhibit 5

a) Calculate the marginal cost (MC), total variable cost (TVC) and average variable cost (AVC) for each kilo of tomatoes per day.

(9 marks)

b) What is the profit-maximising level of output?

(1 mark)

c) How much would be the economic profit at the profit-maximising level of output? Show your working.

(2 marks)

d) What is Kea's shutdown point? At what price do you think that Kea will choose to shutdown? Explain.

(2 marks)

e) If the market price is now same as the price that you obtained in part (d), will other farms with the same costs as Kea, enter or exit the tomatoes market? Why?

(2 marks)

Part B

Pizzas market was once perfectly competitive in Mary Island. It was selling at the price of RM10 per regular pizza. Years later, where all the firms started to exit the market made West Pizza is now the only shop selling pizzas in that island. *Exhibit 6* shows the price and quantity demanded for West Pizza per day. The marginal cost is constant at RM10 per regular pizza.

Price (RM per regular pizza)	Quantity demanded (regular pizza per day)
10	50
20	40
30	30
40	20
50	10

Exhibit 6

Continued...

a) Calculate total revenue (TR) and marginal revenue (MR) for each pizza produced by West Pizza.

(5 marks)

b) Plot the demand curve (D), marginal revenue curve (MR) and marginal cost curve (MC) on a graph.

(6 marks)

c) What was/is the profit-maximising level of output and price when pizzas market was perfectly competitive and when it is now only sold by West Pizza?

(2 marks)

d) How much is the deadweight loss after the swift of the pizzas market?

(1 mark)

[TOTAL 30 MARKS]

End of paper